Powermate®

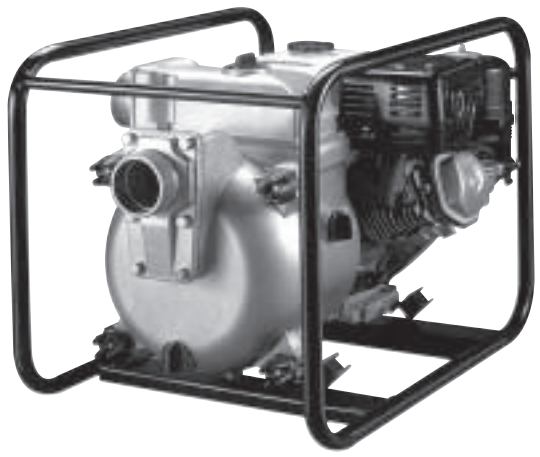
TRASH PUMP

High Performance Self-Priming Engine Pump

OPERATION MANUAL

Common points for all series

- Thank you for choosing a Powermate® Trash Pump.
- This manual is prepared for your safety when operating pump. Please read carefully and comprehend fully before use. (Wrong usage could cause injury or death.)
- Please keep this manual handy for future reference.



Pramac America,LLC
P.O.Box 6001 Kearney, NE 68848
1-800-445-1805

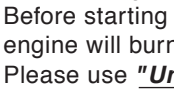
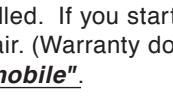
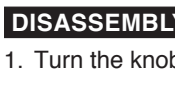
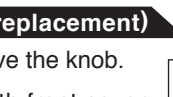
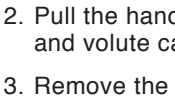
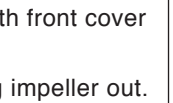
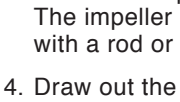
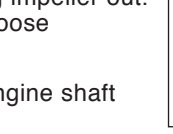
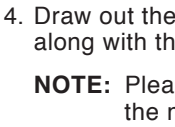
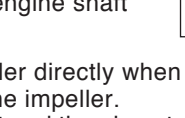
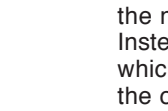
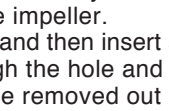
11-12 0070101

SAFETY PRECAUTIONS

Read and understand this manual completely before operation.
Below information should not be neglected for proper use of this product.
Your understanding can prevent harm or danger to user or others.

Following information is very important for safety in handling this product. Be sure to observe them.	
⚠ DANGER	Indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury.
⚠ WARNING	Indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.
⚠ CAUTION	Indicates a potentially hazardous situation which, if not avoided, may resultin minor or moderate injury, or property damage.
IMPORTANT	⃠ PROHIBITED ❗ ALERT

⚠ DANGER

 **Avoid fire when refuel or maintenance.** Highly inflammable!	 **Do not use pump on slope.** Fuel spillage at tank cap or carburetor may cause fire.
Do not operate Trash pump inside a room or under bad ventilation condition. Harmful substances are in exhaust gas. There is danger of gas poisoning.	In case of operating Trash Pump in a well or in a hollow, the person operating the pump must **not enter the small space** as there is danger of gas poisoning.
 **Do not put any obstacle around engine muffler.** It may cause fire or breakage.	 **Do not overhaul or repair, except by person who is trained to do so.**
 **Read carefully and understand fully before use.**	 **Keep children away from pump when in operation.**
 **Do not touch muffler or any part of the engine. It could cause burn.**	 **Do not run pump without water inside the pump.** This will cause pump damage.
 Use correct type of **suction hose. Water temperature tolerance: 5 to 45℃.** May cause breakage if use outside the mentioned range.	 This pump is not Suitable: drinking water, seawater, kerosene, light oil, heavy oil, gasoline, chemical, acid, alkaline etc.
 **Please use suction hose for suction side.** Please purchase suitable hose to fit to connection dia and suitable length.	 **Please firmly connect hose with coupling and hose band** when you connect suction or delivery hose to pump.

BEFORE USE

1 Check accessories provided

List of accessories provided are printed in the pump manual.

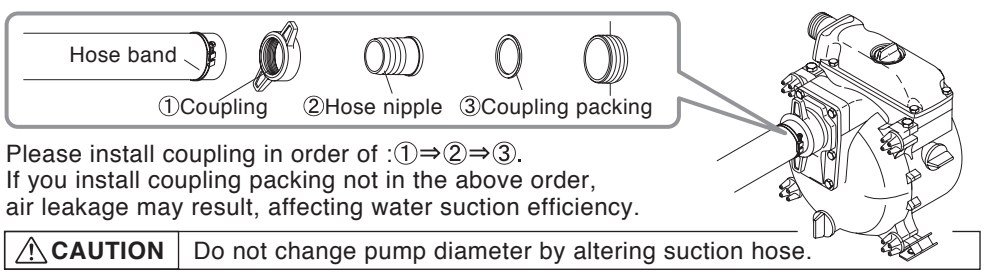
4-stroke engine

4-stroke engine needs ***"engine oil"*** There is ***no engine oil in the engine.***
Before starting engine, engine oil must be filled. If you start engine without engine oil, engine will burn out and it is difficult to repair. (Warranty does not cover such claim.)
Please use ***"Unleaded Gasoline for Automobile"***.

⚠ WARNING	Flammable!! Avoid fire when refuel or maintenance.
⚠ CAUTION	Before starting engine, please check if engine oil is filled to required level. Without engine oil or shortage of engine oil can cause trouble for engine.
	Please read carefully Engine Operation Manual for engine oil instructions.
	Flammable! Do not operate near open fire.
	Any fuel spillage must be cleaned completely.
	Check engine oil before operation. Check and refuel periodically. Please read Engine Operation Manual for instructions.
	Stop engine operation when refuelling engine oil. Engine oil can be very hot after operation.

3 How to install Coupling

⚠ CAUTION	Different accessories are suitable for different models. Please check connection diameter and install correct parts.



Please install coupling in order of :①⇒②⇒③.
If you install coupling packing not in the above order, air leakage may result, affecting water suction efficiency.

⚠ CAUTION	Do not change pump diameter by altering suction hose.

4 Make sure suction hose is connected properly

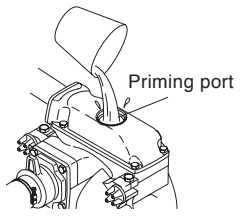
In case of no self-priming after filling pump with water and engine is started, check suction hose connection carefully again. Most cases of no self-priming are caused by improper hose connection.

⚠ CAUTION	Use suction hose for suction side. Use couplings/hose band as provided in accessory and attach hose properly. Installation of strainer at the end of suction hose is necessary.

5 Fill pump with water before use

As pump is self-priming type, fill water fully from priming port into pump before running.
Insufficient water can cause damage to pump.

⚠ CAUTION	Running without filling water can damage mechanical seal.



HOW TO USE

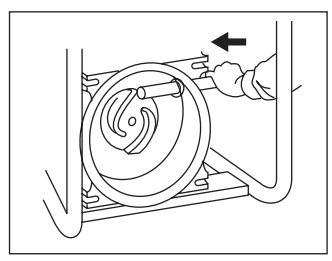
1 Ensure pump is fully filled up with water.

2 Ensure strainer at the end of suction hose is in water.
(If any mud or sand is at the bottom of water, suspend hose avoiding the bottom.)

3 Ensure no obstacle is at delivery hose side.

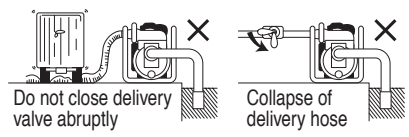
DISASSEMBLY AND CLEANING (Parts replacement)

1. Turn the knob counterclock-wise and remove the knob.
2. Pull the handle towards you, and then both front cover and volute casing can be removed.
3. Remove the peripheral plug before taking impeller out. The impeller can be detached by prying loose with a rod or the like.
4. Draw out the mechanical seal from the engine shaft along with the sleeve.



NOTE: Please do not hammer an impeller directly when you want to take it out from the machine. It might damage the impeller.
Instead, take out the plug set first and then insert something like a rod or tool which is thin enough to get through the hole and hammer the rod or tool at the other end. The impeller can be removed out easily without damaging it.

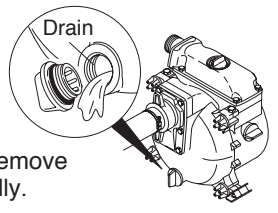
NOTE: When assembling the parts, do not forget to place the adjusting washer, O-ring, etc., in the right positions. Also, correctly install the front cover and evenly tighten the right and left knobs.
Note that incomplete assembling may affect the performance of the unit.

⚠ CAUTION	***Beware of water hammering*** Do not allow any vehicle to run over the delivery hose. Do not close the delivery valve abruptly because water-hammer may occur. This may result in heavy damage to the pump. 
	For engine manual and notes, please refer to Engine Operation Manual enclosed.

ATTENTION AFTER USE

1 Drain water after use

After use, remove the drain plug at the bottom and pour water from the suction/discharge ports so that the remaining sand is forced out of the pump. If the pump is used to transfer muddy water over a long period of time, a large volume of sand will be piled up in the pump casing, making it difficult to remove the front cover. Therefore, clean the inside the pump periodically.



⚠ CAUTION	Water inside may freeze at below 0℃ in winter and may damage pump. After use, drain water from drain plug before storing.

2 Long storage

Discharge fuel in fuel tank and carburetor completely. Unused fuel in tank (if kept more than 30days) may cause engine failure.
*Please refer to Engine Operation Manual.

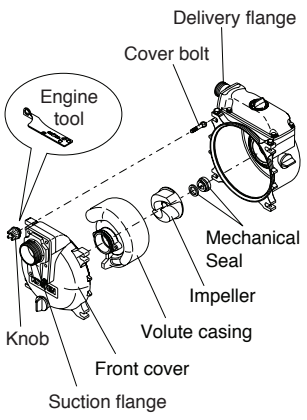
⚠ CAUTION	Do not smoke as fuel is highly flammable.
	Unused fuel must not remain in the tank for long term storage. Unused fuel may cause future engine failure.

TROUBLESHOOTING GUIDE

PROBLEM	POSSIBLE CAUSE	SOLUTION
Pump does not revolve	Rusting inside engine	Refer to Instruction manual of engine (Repair)
	Burn out of engine	
	Stuck impeller	Disassemble & clean the impeller⇒ SOLUTION ①
	Intrusion of foreign matters	Remove foreign matters
Not enough delivery volume	Air leakage from suction side	Check piping at suction side⇒ SOLUTION ②
	Output power down from engine	Check & Repair engine
	Damaged mechanical seal	Replace mechanical seal (Repair)
	Suction lift is high	Make suction lift lower
	Improper length/diameter. Kinked hose	Ensure proper hose is used.Remove kinks
	Leakage of water from delivery hose or pipe	Check and stop leakage of water
	Clogging of foreign matters at impeller	Disassemble & clean the impeller⇒ SOLUTION ①
	Wearing out of impeller	Replace the impeller (Repair)
	High sand content	Remove sand content
Pump does not self-prime water	Air goes in from suction side	Check piping at suction side⇒ SOLUTION ②
	Insufficient priming water inside pump casing	Prime water fully. Refer [BEFORE USE] "5 Fill pump with water before use"
	Drain plug is not tight	Tighten drain plug firmly. Please refer "ATTENTION AFTER USE"
	Improper revolution of engine	Refer to Engine Operation Manual.
	Air leakage from mechanical seal	Replace mechanical seal (Repair)
	Delivery hose is broken	Replace delivery hose

SOLUTION ①

Remove obstacle in impeller.
(Do not remove impeller)



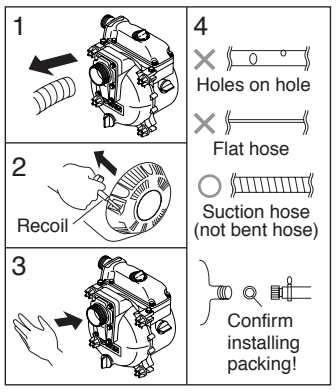
SOLUTION ②

Check suction pipe!

In case of no suction or small delivery, the cause is usually due to air leakage at suction side.

In such case :

1. Remove suction hose.
2. Start engine with water inside the pump.
3. Press the palm of your hand to cover the suction hole and wait 30 seconds. If you feel suction on your palm, the pump is working fine but hose connection needs correction.
4. Please check if rubber packing is installed and if there is any hole on suction hose

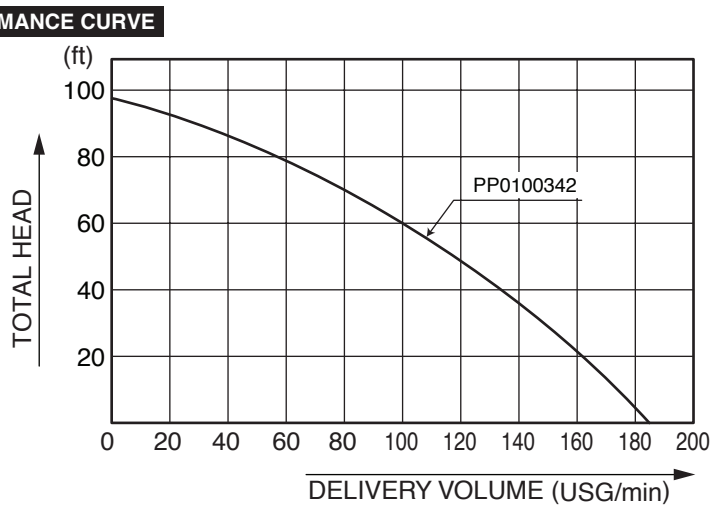


SPECIFICATIONS

Model		PP0100342
PUMP	Connection Dia	50 mm (2")
	Connection Thread	BSP Thread or Fire Fighting Thread
	Total Head	98 ft (30 m)
	Delivery Volume	185 USG/min (700 L/min)
	Max. Suction Head	26 ft (8 m)
ENGINE	Model	Forced Air-coolel 4-stroke Gasoline Engine
		HONDA GX160
	Exhaust Volume	163 cc
	Output – Rated Power	2.9kW(3.9PS) / 3600rpm
	Output – Max. Power	3.6kW(4.9PS) / 4000rpm
	Fuel	Automotive Unleaded Gasoline
	Fuel Tank Capacity	0.819 USG (3.1 L)
	Continuous Operating Time	Approx.2hrs (full tank)
	Starting Method	Recoil starter
Standard Accessories		1 Strainer, 2 Hose Couplings, 3 Hose Bands, 1 Engine Tool Set
Net Weight		104 lbs (47 kg)

*Specifications may differ slightly depending on model.
**For the purpose of improvement, specifications are subject to changes without notice.

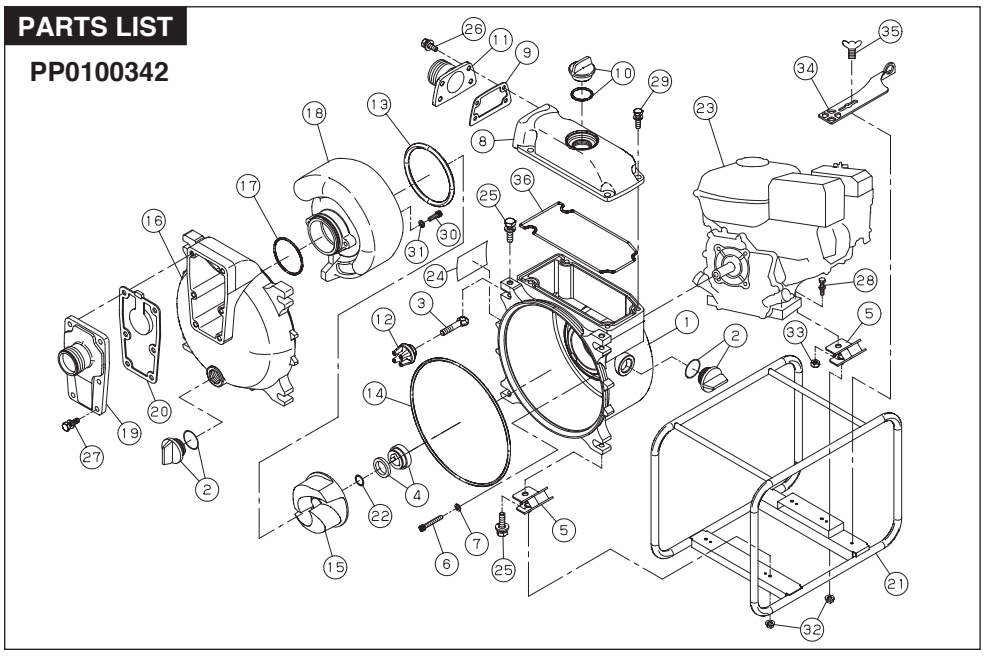
PERFORMANCE CURVE



*Performance ratings are guaranteed minimum, not inflated maximum.

PARTS LIST

PP0100342



PP0100342

REF. NO.	PART NO.	DESCRIPTION	QTY
1	PPK0115446	Pump Housing	1
2	PPK0118079	25A Plug and O-Ring	2
3	PPK0115580	Cover Bolt	4
4	PPK0115159	Mechanical Seal	2
5	PPK0116172	Cushion Rubber	4
6	PPK0116517	Flange Socket Bolt M8×60	4
7	PPK0116493	Washer ϕ8	4
8	PPK0115445	Delivery Housing	1
9	PPK0115490	Flange Packing	1
10	PPK0118450	32A Plug and O-Ring	1
11	PPK0115444	Delivery Flange	1
12	PPK0115590	Knob	4
13	PPK0115578	Casing Packing	1
14	PPK0115579	Front Cover Packing	1
15	PPK0115447	Impeller	1
16	PPK0115882	Front Cover	1
17	PPK0115676	O-Ring	1
18	PPK0115489	Volute Casing	1
19	PPK0115492	Suction Flange	1
20	PPK0115780	Check Valve Packing	1
21	PPK0117816	Base Set	1
22	PPK0110491	Adjusting Washer	3
23	Note A	Engine Honda GX160	1
24	0070099	Name Plate	1
25	PPK743119083	Bolt M12×45	4
26	PPK743119046	Bolt M8×22	4
27	PPK743119061	Bolt M10×25	6
28	PPK743119051	Bolt M8×35	2
29	PPK743119063	Bolt M10×30	4
30	PPK734505066	Socket bolt M8×25	2
31	PPK854255008	Seal Washer ϕ8	2
32	PPK842319008	Spring Nut M8	4
33	PPK838719008	Nut M8	2
34	PPK0115778	Tool	1
35	PPK741305153	Wing Bolt M8×15	1
36	PPK0115548	Head Packing	1

Note A: Pramac America, LLC will not provide engines as replacement parts. Engines are covered through the engine manufacturer's warranty. Consult the accompanying engine manual or contact our service department for assistance.

CUSTOMER SERVICE

Call our toll free number 1-800-445-1805
7 a.m. to 5 p.m. C.S.T. or www.powermate.com to obtain warranty service information or order replacement parts or accessories. Please have the following information available:

1. Model Number.
2. Serial Number.
3. Date and where purchased.
4. Replacement numbers if you are ordering part

Pramac America, LLC P.O. Box 6001 Kearney, NE 68848
Attention: Warranty Service Department
www.powermate.com

LIMITED WARRANTY

Warranty Coverage: Pramac America, LLC (the Company) warrants to the original retail customer in North America that it will repair or replace, free of charge, any parts found by the Company or its authorized service representative to be defec- tive in material or workmanship. This warranty covers the cost of replacement parts and labor for defects in material or workmanship.

Not Covered:

- Transportation charges for sending the product to the Company or its authorized service representative for warranty service, or for shipping repaired or replacement products back to the customer; these charges must be borne by the customer.
- Engine is covered exclusively by a separate warranty from the engine manufacturer, included with the engine Manual.
- Damages caused by abuse or accident, and the effects of corrosion, erosion and normal wear and tear.
- Warranty is voided if the customer fails to install, maintain and operate the product in accordance with the instructions and recommendations of the Company set forth in the owner's manual, or if the product is used as rental equipment.
- The Company will not pay for repairs or adjustments to the product, or for any costs or labor, performed without the Company's prior authorization.

Warranty Period: One (1) year from the date of purchase on products used for consumer, business or commercial applications.

For warranty service, the customer must provide dated proof of purchase and must notify the Company within the warranty period.

For warranty service: Call toll free 800-445-1805, or write to Pramac America, LLC, Product Services, P. O. Box 6001, Kearney, NE 68848.

Exclusions And Limitations: The company makes no other warranty of any kind, express or implied. Implied warranties, including warranties of merchantability and of fitness for a particular purpose, are hereby disclaimed. The warranty service described above is the exclusive remedy under this warranty; Liability for incidental and consequential damages is excluded to the extent permitted by law.

This warranty gives you specific legal rights, and you may also have other rights which vary from state to state. Some states do not allow a disclaimer of implied warranties, or the exclu-sion or limitation of incidental and consequential damages, so the above disclaimers and exclusions may not apply to you.